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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/618,867	07/19/2000	Jack Van Oosterhout	8371-105	2653

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EXAMINER

PHAM, THIERRY L

ART UNIT	PAPER NUMBER
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2624

DATE MAILED: 11/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/618,867

Applicant(s)

OOSTERHOUT ET AL.

Examiner

Thierry L. Pham

Art Unit

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on RCE filed on 8/22/05.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 10-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 10-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

- This action is responsive to the following communication: RCE filed on 8/22/05.
- Claims 1-8, and 10-22 are pending; claim 9 has been canceled.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/22/05 has been entered.

Response to Arguments

Applicant's arguments with respect to claims 1, 10, and 22 have been considered but are moot in view of the new ground(s) of rejection due to newly added features.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-8, and 10-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Endoh (US 6707566), and in view Yacoub (US 6552813).

Regarding claim 1, Endoh discloses a method for multicast document printing (multicasting document printing, abstract, col. 2, lines 5-13) the method comprising:

- receiving document data to be printed at a host (i.e. PC 101, fig. 1-2), wherein said document data includes a number of copies (PC 101 includes printer driver 402 for inputting print

Art Unit: 2624

instruction including number of copies of a print job, S602, fig. 7) of a document to be created from the document data;

- allocating (allocating a subset of a print job to each printers 102-107, fig. 1, col. 3, lines 20-24 and col. 7, lines 19-26) a subset of the number of copies to each of at least two corresponding separate printers;
- formatting (printer driver 402 for formatting the document data, fig. 4, col. 4, lines 65-67) the document data into a print job;
- embedding instructions (inputting individual printer print instruction via a printer driver user interface, fig. 6) specific to each of the corresponding printers (for each printers connected via a network, fig. 6, col. 5, lines 50-54) into the print job to form an entire print job, the instructions indicating (instructing indicating number of copies for each printers connected via a network, fig. 7, col. 7, lines 19-31) for each of the corresponding printers the allocated subset of copies (i.e. number of prints, col. 7, lines 30-31) to be printed by that printer;
- multicasting (multicasting protocol for multicasting the entire print job, col. 3, lines 18-31 and col. 7, lines 35-40) the entire print job to the at least two separate printers (printers 102-107, fig. 1) connected by a common network to the host; and
- each of the at least two separate printers (each printers connected via a network receiving an entire print job, col. 5, lines 50-55) receiving the entire print job and the entire print job comprising routing information comprising a list of printer identifiers (list of printers Ids added to the print job instructions, fig. 5-7) and an assigned of number of documents (number of prints for each printer, col. 7, lines 30-31) for each printer, and wherein multicasting the entire print job to at least two separate printers (printers 102-107, fig. 1).

Endoh teaches a printing system having PC 101 and plurality of printers 102-107 (fig. 1), and multicasting a print job generated from PC 101 to plurality of printers 102-107 (1), but fails teach and/or suggest transmitting the entire print job from the host to a store-and-forward device residing on the network for reception and temporary storage at the store-and-forward device and forwarding by the store-and-forward device to the at least two separate printers.

Yacoub, in the same field of endeavor for printing system, teaches a well known method for transmitting (transmitting a print job from client computer 420 to print server 460, fig. 4) the entire print job from the host to a store-and-forward device residing on the network (network

Art Unit: 2624

450, fig. 4) for reception and temporary storage (print server also includes a temporary storage such as spooler, col. 6, lines 44-67) at the store-and-forward device and forwarding by the store-and-forward device to the at least two separate printers (print server 460 then forwards print job sent from client computer to plurality of printers, fig. 4).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify print system of Endoh to include a print server for temporary stores and forwards print data to plurality of printers as taught by Yacoub because of a following reason: (●) by storing print job in the print server helps to ease traffic congestions within a networked printing system; for example, print system as taught by Yacoub allows plurality of client computers (clients A-E) to send and temporary store print jobs at print server (server 460, fig. 4), by doing so, it alleviates/eases storage capacity at the client computers; (●) the printer server automatically forwards the unfinished print data to the available printers without having the users to manually re-transmit the entire print job if the selected printer failed, therefore, it helps reducing time and costs.

Therefore, it would have been obvious to combine Endoh with Yacoub to obtain the invention as specified in claim 1.

Also note: printer server and/or spooler for temporary storing job print data and later forwarding to printers is well known and widely available in the art. The examiner has cited numbers of pertinent arts to show such teaches in the Conclusion section.

Regarding claim 2, Endoh further teaches the method of claim 1, wherein the host is a printer (i.e. printers 102-107, fig. 1).

Regarding claim 3, Endoh further teaches a method of claim 1, wherein the host is application software resident in a printer (printers 102-107 includes plurality of storage memory devices for storing application software, fig. 3). Please notes: It is impossible to print document data to application software; application software is a computer program and does not contain any storage and/or hardware device.

Art Unit: 2624

Regarding claim 4, Endoh further teaches the method of claim 1, wherein the host is a computer (PC 104, fig. 1).

Regarding claim 5, Endoh further teaches the method of claim 1, wherein the host is a scanner (scanner 1009, fig. 10).

Regarding claims 6-8, multi-functional printer including copier, fax is well known and widely available in the art.

Regarding claim 10: Claim 10 recite limitations that are similar and in the same scope of invention as to those in claim 1 except computer readable memory for storing computer programs. All computers/printers have some type of computer readable medium (i.e. RAM 203, fig. 2) for storing computer program, hence claim 10 would be rejected using the same rationale as in claim 1.

Regarding claim 11, Endoh further teaches the medium of claim 10, wherein the computer readable medium is read by a computer (PC 101, figs. 1-2).

Regarding claim 12, Endoh further teaches the medium of claim 10, wherein the computer readable medium is read by a printer (RAM 303 read by printers 102-107, fig. 3).

Regarding claim 13, Endoh further teaches the medium of claim 10, wherein the medium is a diskette (HD Drive 305, fig. 3).

Regarding claim 14, Endoh further teaches the medium of claim 10, wherein the medium is a compact disc (ROM 302, fig. 3).

Regarding claim 15, Endoh further teaches the medium of claim 10, wherein the medium is a network-accessible file (FD Drive 304, fig. 3).

Regarding claim 16, Endoh further discloses a network device (i.e. printers 102-107 and PC 101, fig. 1), comprising:

- a port operable (a port for cable connecting printers 102-107 to network 108, fig. 1) to connect to a network and receiving document (receiving documents from PC 101, fig. 1) data to be converted into a hard copy (i.e. via print engine 306, fig. 3) output with a predetermined number of copies (no. of copies, fig. 7) of a document to be created;
- a processor (PC 104, fig. 1) in communication with the port, operable to format the document data into a print job comprising a document and instructions (print instruction, fig. 6) to at least two printers (i.e. printers 102-107, fig. 1) assigning a number of copies (i.e. number of copies, fig. 7) of the document to each of the at least two printers (col. 4, lines 58-65), wherein the sum of copies to be created by the at least two printers (user manually sets number of copies to be printed by each printers, fig. 6-7) is substantially equal to the predetermined number of copies to be created; and
- a communication port operable to multicast (multicasting protocol for multicasting the entire print job, col. 3, lines 18-31 and col. 7, lines 35-40) the entire print job to the at least two printers (i.e. printers 102-107, fig. 1) connected to the network by a common network.

Endoh teaches a printing system having PC 101 and plurality of printers 102-107 (fig. 1), and multicasting a print job generated from PC 101 to plurality of printers 102-107 (1), but fails teach and/or suggest transmitting the entire print job from the host to a store-and-forward device residing on the network for reception and temporary storage at the store-and-forward device and forwarding by the store-and-forward device to the at least two separate printers.

Yacoub, in the same field of endeavor for printing system, teaches a well known method for transmitting (transmitting a print job from client computer 420 to print server 460, fig. 4) the entire print job from the host to a store-and-forward device residing on the network (network 450, fig. 4) for reception and temporary storage (print server also includes a temporary storage such as spooler, col. 6, lines 44-67) at the store-and-forward device and forwarding by the store-and-forward device to the at least two separate printers (print server 460 then forwards print job sent from client computer to plurality of printers, fig. 4).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify print system of Endoh to include a print server for temporary stores and

Art Unit: 2624

forwards print data to plurality of printers as taught by Yacoub because of a following reason: (●) by storing print job in the print server helps to ease traffic congestions within a networked printing system; for example, print system as taught by Yacoub allows plurality of client computers (clients A-E) to send and temporary store print jobs at print server (server 460, fig. 4), by doing so, it alleviates/eases storage capacity at the client computers; (●) the printer server automatically forwards the unfinished print data to the available printers without having the users to manually re-transmit the entire print job if the selected printer failed, therefore, it helps reducing time and costs.

Therefore, it would have been obvious to combine Endoh with Yacoub to obtain the invention as specified in claim 16.

Also note: printer server and/or spooler for temporary storing job print data and later forwarding to printers is well known and widely available in the art. The examiner has cited numbers of pertinent arts to show such teaches in the Conclusion section.

Regarding claim 17, Endoh further teaches the network device of claim 16, wherein the network device is a computer (PC 101, fig. 1).

Regarding claim 18, Endoh further teaches the network device of claim 16, wherein the network device is a printer (printers 102-107, fig. 1).

Regarding claim 19, RIP is well known and widely available in the art.

Regarding claim 20, Endoh further teaches a document printing method comprising:

- formatting (PC 101, fig. 1) an entire print job comprising a document to be printed and instructions specific to each of at least two printers to each print one or more copies of the document (PC 101 includes printer driver 402 for inputting print instruction including number of copies of a print job, S602, fig. 7);
- multicasting (multicasting protocol for multicasting the entire print job, col. 3, lines 18-31 and col. 7, lines 35-40) the entire print job over a network coupled to each of the at least two printers.

Art Unit: 2624

Endoh teaches a printing system having PC 101 and plurality of printers 102-107 (fig. 1), and multicasting a print job generated from PC 101 to plurality of printers 102-107 (1), but fails teach and/or suggest transmitting the entire print job from the host to a store-and-forward device residing on the network for reception and temporary storage at the store-and-forward device and forwarding by the store-and-forward device to the at least two separate printers.

Yacoub, in the same field of endeavor for printing system, teaches a well known method for transmitting (transmitting a print job from client computer 420 to print server 460, fig. 4) the entire print job from the host to a store-and-forward device residing on the network (network 450, fig. 4) for reception and temporary storage (print server also includes a temporary storage such as spooler, col. 6, lines 44-67) at the store-and-forward device and forwarding by the store-and-forward device to the at least two separate printers (print server 460 then forwards print job sent from client computer to plurality of printers, fig. 4).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify print system of Endoh to include a print server for temporary stores and forwards print data to plurality of printers as taught by Yacoub because of a following reason: (●) by storing print job in the print server helps to ease traffic congestions within a networked printing system; for example, print system as taught by Yacoub allows plurality of client computers (clients A-E) to send and temporary store print jobs at print server (server 460, fig. 4), by doing so, it alleviates/eases storage capacity at the client computers; (●) the printer server automatically forwards the unfinished print data to the available printers without having the users to manually re-transmit the entire print job if the selected printer failed, therefore, it helps reducing time and costs.

Therefore, it would have been obvious to combine Endoh with Yacoub to obtain the invention as specified in claim 20.

Also note: printer server and/or spooler for temporary storing job print data and later forwarding to printers is well known and widely available in the art. The examiner has cited numbers of pertinent arts to show such teaches in the Conclusion section.

Regarding claim 21, Endoh further discloses the method of claim 20, further comprising receiving the entire print job at one of the at least two printers (number of prints for each printer,

Art Unit: 2624

col. 7, lines 30-31), locating the instructions specific to that printer within the entire print job, and printing the number of copies specified in the specific instructions (PC 101 includes printer driver 402 for inputting print instruction including number of copies of a print job, S602, fig. 7).

Regarding claim 22, Endoh further discloses a document printing method comprising:

- receiving multicasting network (multicasting protocol for multicasting the entire print job, col. 3, lines 18-31 and col. 7, lines 35-40) transmission at a networked printer;
- determining whether the multicast network transmission contains (instructing indicating number of copies of an entire print job for each printers connected via a network, fig. 7, col. 7, lines 19-31) an entire print job; and
- when the multicast transmission contains an entire print job, locating instructions specific to the networked printer (each printers connected via a network receiving an entire print job, col. 5, lines 50-55) in the entire print job and printing at least one cop of a document contained in the entire print job according to the instructions (list of printers Ids added to the print job instructions, fig. 5-7).

Endoh teaches a printing system having PC 101 and plurality of printers 102-107 (fig. 1), and multicasting a print job generated from PC 101 to plurality of printers 102-107 (1), but fails teach and/or suggest transmitting the entire print job from the host to a store-and-forward device residing on the network for reception and temporary storage at the store-and-forward device and forwarding by the store-and-forward device to the at least two separate printers.

Yacoub, in the same field of endeavor for printing system, teaches a well known method for transmitting (transmitting a print job from client computer 420 to print server 460, fig. 4) the entire print job from the host to a store-and-forward device residing on the network (network 450, fig. 4) for reception and temporary storage (print server also includes a temporary storage such as spooler, col. 6, lines 44-67) at the store-and-forward device and forwarding by the store-and-forward device to the at least two separate printers (print server 460 then forwards print job sent from client computer to plurality of printers, fig. 4).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify print system of Endoh to include a print server for temporary stores and forwards print data to plurality of printers as taught by Yacoub because of a following reason:

Art Unit: 2624

(●) by storing print job in the print server helps to ease traffic congestions within a networked printing system; for example, print system as taught by Yacoub allows plurality of client computers (clients A-E) to send and temporary store print jobs at print server (server 460, fig. 4), by doing so, it alleviates/eases storage capacity at the client computers; (●) the printer server automatically forwards the unfinished print data to the available printers without having the users to manually re-transmit the entire print job if the selected printer failed, therefore, it helps reducing time and costs.

Therefore, it would have been obvious to combine Endoh with Yacoub to obtain the invention as specified in claim 22.

Also note: printer server and/or spooler for temporary storing job print data and later forwarding to printers is well known and widely available in the art. The examiner has cited numbers of pertinent arts to show such teaches in the Conclusion section.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- US 6091507 to Vatland et al, teaches a print server for storing and forwarding print job to printers.
- US 6469796 to Leiman et al, teaches a print server for storing and forwarding print job to printers.
- US 5897260 to Zingher, teaches a print server for storing and forwarding print job to printers.

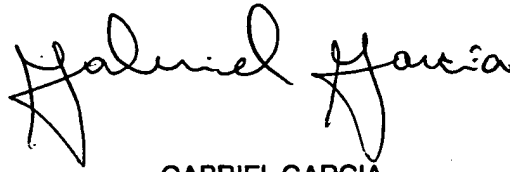
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thierry L. Pham whose telephone number is (571) 272-7439. The examiner can normally be reached on M-F (9:30 AM - 6:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K. Moore can be reached on (571)272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2624

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Thierry L. Pham



GABRIEL GARCIA
PRIMARY EXAMINER